

New Hampshire's Independent Energy Study Synthesis
Chapter 4 – Residential Energy Efficiency CORE Programs Review and Assessment
November 30, 2012

Summary of Chapter Intent

Chapter 4 of the New Hampshire Independent Energy Study is focused on the residential CORE programs offered by the regulated electric and gas utilities that primarily target single family homes, and are designed to address market barriers that limit investment in energy efficiency improvements. The chapter includes a total of 41 recommendations and sub-recommendations. It describes the characteristics of the programs that are working well in meeting policies and goals, and makes recommendations for enhancements. The Home Energy Assistance program, which provides weatherization services for low-income households, is addressed separately in Chapter 6.

Chapter 4 and associated recommendations are organized by market segment as follows:

- Existing homes
- Residential new construction
- Residential retail products
- Residential heating, ventilation and air-conditioning (HVAC) equipment
- Educational programs

Additional considerations, beyond those identified in the Independent Energy Study, have also been identified by the EESE Board and are included below.

Findings

Top Priorities for Early Action

Integrate the Chapter Recommendations into the CORE Docket Proceedings

As the Chapter 4 recommendations are focused more on the details of program design and implementation than on legislative policy, the recommendations do not require legislative action. In addition, the parties to the CORE dockets (through either direct input at meetings or through participation on sub-groups) have greater ability to address the details of recommended enhancements within the current regulatory structure than does the EESE Board or the legislature.

The Utilities are also currently reviewing the recommendations in the Independent Energy Study as they begin their work on the 2013-2014 CORE Program filing. Interested parties can formally participate in the (Public Utilities Commission) PUC process. Program administration is an active and ongoing process and some of the recommendations are already being discussed by the administrators. While some of the recommendations would require regulatory approval, others can be implemented directly by program administrators.

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Further, certain aspects of the *Home Performance with Energy Star* (HPwES) program were recently under formal review at the Commission. Results of that process may have an effect on the program design, and its interaction with other programs, going forward¹.

While these issues are most appropriately addressed within the domain of the PUC process, the EESE Board recommends periodic updates as to progress on these matters.

1) Development:

NH Utilities & CORE Stakeholders

2) Establishment:

Public Utilities Commission

3) Implementation:

NH Public Utilities Commission & NH Utilities

Areas for Further Consideration in the Near Term

Items to be Considered During CORE Proceedings

Although the Energy Efficiency & Sustainable Energy (EESE) Board is not likely to focus at the program implementation level of detail, the EESE Board does wish to encourage the parties to consider the Independent Energy Study recommendations as CORE programs for 2013-2014 and future years are being developed. It is worth noting that there are several EESE Board members who are also parties to the CORE Program proceedings. Further review of the Chapter 4 recommendations is presented below, structured as in the chapter, by market segment and intended for consideration and discussion by the parties to the CORE Program proceedings.

The comments and recommendations below largely delve into details of program design and implementation that are relevant to program administrators and to the PUC in its administrative and program oversight role.

New Sources of Funding

In the 2012 legislative session, the NH Legislature passed HB1490², relative to New Hampshire's Regional Greenhouse Gas Initiative (RGGI). As part of this legislation, all proceeds received by the state from the sale of carbon allowances, up to \$1, are allocated to the CORE energy efficiency programs. In July 2012, the NH Public Utilities Commission opened a docket to determine how those funds should be utilized³. The

¹ NH PUC, ORDER NO. 25,402, Order on Home Performance with Energy Star Program, Issued August 23, 2012, <http://www.puc.state.nh.us/Regulatory/Orders/2012orders/25402e.pdf>.

² NH House Bill 1490, *An act relative to New Hampshire's regional greenhouse gas initiative cap and trade program for controlling carbon dioxide emissions*, <http://www.gencourt.state.nh.us/legislation/2012/HB1490.html>.

³ NH PUC, DW 10-188, 2011-2012 CORE Electric Energy Efficiency Programs and Natural Gas Energy Efficiency Programs, Supplemental Order of Notice Relative to Electric Utilities, <http://www.puc.nh.gov/Regulatory/Orders%20of%20Notice/071312onDE10-188%20Electric%20and%20Gas.PDF>

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EESE Board urges the parties to this docket and the PUC in its deliberations to be sure to include consideration for:

1. Multi-family dwellings;
2. Fuel-blind efficiency programs; and
3. Low-income programs.

Existing Homes Programs

Primary recommendations centered on the incentive level offered, contractor relationships and evaluation of the HPwES program. Specifically:

1. The time is not ripe for further reduction of the maximum HPwES incentive. The program is still being operated as a pilot with limited participation so it is more appropriate to monitor the market's response to the current incentive structure (which was adjusted from 75% to 50% in 2011) and make adjustments as deemed appropriate. The program evaluation done by Cadmus and released in 2011 concluded that the reduction in the incentive was "appropriate" and that "The NH program appears to have arrived at a good compromise incentive structure by offering a 50% incentive."
2. Appliances and lighting should continue to be offered as part of the recommended measures in the HPwES program, instead of shifted to the retail products programs. While the study points out that this shift could extend the HPwES program funds, the costs and savings for measures installed as a result of an audit should be attributed to the program that influenced the installation. Of note, appliance and lighting measures are limited within this program. Program participants are encouraged to make additional Energy Star purchases through the lighting and appliance programs and are provided with a Lighting catalog and appropriate information.
3. It would be helpful to develop and clearly state the long term vision to develop the contractor market. Inherent in this is a need to differentiate between state level policy goal and program administrator responsibilities.
4. There is support for the recommendation to transition to a more open market for contractors, but it is noted that this was addressed to a certain degree in Commission Order 25,189 approving 2011 programs, and that the utilities are addressing this item while also balancing customer service, quality, budget and program management responsibilities.
5. There is some disagreement with the recommendation that contractor prices should be dictated by the market – at least not completely dictated. The current program model is for a statewide program providing consistent services throughout all of New Hampshire. While there could be aspects of this complex issue that could be discussed further, the current limited scope and funding of the pilot requires that the administrators balance many factors to maintain program cost effectiveness.

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6. There is not agreement with the recommendation to conduct more frequent evaluations of the HPwES. All evaluation priorities need to be considered and balanced with the overall evaluation needs of all programs across the CORE portfolio.
7. There is agreement that consumers and the program benefit from marketing that emphasizes the benefits of improving home comfort and reduced energy bills. The scope of this recommendation was not clear as current program marketing materials do incorporate these concepts. Due to limited program funds the overall scope of marketing needs to be balanced with participation goals. Marketing methods need to evolve and match the scope and goals of the program.
8. The current program administrators currently report savings in both kWh and MMBTU. Savings estimates could be further disaggregated by fuel type if needed.

Residential New Construction Programs

1. There is agreement with the recommendations that coordination should continue between the gas and electric utilities, and that trainings should be offered to prepare the contractor market for Energy Star 3.0. Both of these are items that the utilities are actively working to address.
2. There is openness to the recommended evaluation of the potential for offering a statewide geothermal program, but due to limited SBC dollars, alternate sources of funding should be considered. A new mechanism, established at the end of the 2012 legislative session, through Senate Bill 218⁴ (SB218), may support this development. This legislation authorized the inclusion of “useful thermal energy” as a renewable energy under class I of the existing NH Renewable Portfolio Standard⁵. The NH Public Utilities Commission will begin a formal rulemaking process to determine how to integrate this new source of eligible energy into the RPS rules⁶.

Residential Retail Products Programs

1. There is not agreement with the recommendation to transition the lighting program to “upstream incentives.” A key feature of the existing program design is that consumers “self select” at the point of purchase to participate in the program based on individual need. The current model has certain advantages which include: it collects customer data so that it is readily available to program evaluators; it directs limited program funds back to customers thus directly influencing their decisions; it allows for a larger range of retailer participation – a result which is felt to be appropriate for a small market such as New Hampshire.
2. There is agreement that it is important to consider program enhancements and alternate models and that it could be beneficial to assess the potential for regional and national efforts. In addition, there could be opportunities to expand marketing

4 NH Senate Bill 218, An act relative to electric renewable portfolio standards, <http://www.gencourt.state.nh.us/legislation/2012/SB0218.pdf>.

5 RSA 362-F, NH Electric Renewable Portfolio Standard, <http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-XXXIV-362-F.htm>.

6 NH PUC-2500, Electric Renewable Portfolio Standard Rules, <http://www.puc.nh.gov/Regulatory/Rules/Puc2500.pdf>.

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and education to promote efficiency in consumer electronics at the point of purchase to assist consumers as they make decisions regarding purchases.

Residential Heating, Ventilation and Air-Conditioning (HVAC) Equipment Programs

1. There is agreement with the recommendation to emphasize “right-sizing” of heating equipment and the relationship of HVAC systems to whole-house weatherization. Energy Auditor training classes include this material in current curriculum. Training offerings directed at the HVAC contractor sector may be beyond the scope of the CORE programs
2. With regard to the recommendation that an HVAC focused EE program should optimally address heating technologies across all fuel types, the EESE Board is mindful that the PUC is currently engaged in a Docket evaluating the expenditure of SBC funds on fuel neutral savings.
3. Additional high-efficiency and/or Energy Star air-conditioning technologies should be reviewed for possible inclusion in programs such as Energy Star New Homes Construction and the Residential Retail Products program.

Educational Programs

1. The utilities should continue to collaborate and invest in energy code training and education activities. There is also agreement that there could be benefit to enhancing the reporting of program activities to more clearly communicate the program goals and impacts of training and education activities.

1) Development:

NH Utilities and CORE Stakeholders

2) Establishment:

Public Utilities Commission

3) Implementation:

Public Utilities Commission & NH Utilities

Background

In New Hampshire, residential buildings account for nearly 41% of electricity use, 45% of fuel oil consumption and 19% of natural gas use. Each of the approximately 592,000 households in New Hampshire is a potential site for energy savings. Given the age of the housing stock, the heating requirements in winter, increasing cooling demands in summer, and the growing number of electrical appliances and “plug loads” in homes, there is substantial opportunity for increasing energy efficiency in these residences, thereby reducing demand (and costs) for electricity, fossil fuel, natural gas, and other energy resources.

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The CORE Energy Efficiency Program is a set of common products and services offered to consumers by the State’s gas and electric utilities. The electric portion is funded primarily through the System Benefits Charge paid by electric customers in accordance with statute. The gas programs are funded through the Local Distribution Adjustment Charge for gas customers, as established in PUC proceedings. Utilities manage the overall program via a CORE Program Management Team⁷.

⁷ LBA (2012). State of New Hampshire Public Utilities Commission and its Administratively Attached Agencies - Performance Audit, Office of the Legislative Budget Assistant, <http://www.puc.nh.gov/EESE%20Board/LBA%20Audit/LBA%20Performance%20Audit%20Report%20April%202012.PDF>.